

IN THE CLAIMS

1. (currently amended): A method of processing seaweed which comprises the following steps:

- (i) treating seaweed with an alcohol having one to six carbon atoms to form an alcoholic fraction and an insoluble first seaweed residue;
- (ii) separating the alcoholic fraction;
- (iii) removing the alcohol from the alcoholic fraction to form a concentrate comprising biologically active ~~low molecular weight~~ compounds;
- (iv) extracting the first seaweed residue with an aqueous solution at a pH of less than about 6 to form an aqueous first extract and an insoluble second seaweed residue;
- (v) optionally concentrating the first extract; ~~and~~
- (vi) adjusting the pH of the ~~resulting first extract (iv) or the concentrated extract of (v)~~ to a value in the range of about 5 to about 8 to obtain a first polysaccharide fraction comprising a mixture of laminaran and fucoidan;
- (vii) extracting the second seaweed residue with water at a temperature of 40 to 100°C to form an aqueous second extract and an insoluble third seaweed residue;
- (viii) concentrating the second extract; and drying the concentrate to obtain a second polysaccharide fraction comprising a mixture of laminaran, fucoidan, and polymannuronic acid; and
- (ix) acidifying the second polysaccharide fraction to a pH not higher than 2.5 to precipitate polymannuronic acid; and separating the polymannuronic acid.

2. (currently amended): [A] The method as claimed in claim 1, further comprising treating the first polysaccharide fraction with ethanol to sequentially precipitate fucoidan first and then laminaran ~~and separating the fucoidan and laminaran.~~

3. – 5. (canceled)

6. (currently amended): [A] The method as claimed in claim ~~5~~ 1, further comprising dissolving the precipitate in an alkaline solution and precipitating a salt of polymannuronic acid with ethanol.

7. (currently amended): [A] The method as claimed in claim 6, further comprising: neutralizing the supernatant after precipitation; and precipitating the neutralized supernatant with ethanol to form a ~~second~~ third polysaccharide fraction comprising fucoidan and laminaran.
8. (currently amended): [A] The method as claimed in claim 7, further comprising treating the third seaweed residue of (vii) with an alkali to form a third extract.
9. (currently amended): [A] The method as claimed in claim 8, further comprising concentrating and neutralizing the third extract and precipitating with ethanol to obtain a ~~third~~ further polysaccharide fraction comprising a salt of alginic acid.
10. (currently amended): [A] The method as claimed in claim 9, wherein the seaweed is a brown seaweed.
11. (currently amended): [A] The method as claimed in claim 10, wherein the seaweed is from a species selected from the group consisting of *Laminaria cichorioides*, *Laminaria japonica*, *Alaria marginata*, *Alaria fistulosa*, *Fucus evanescens* and *Undaria pinnatifida*.
12. (currently amended): [A] The method as claimed in claim 11, wherein the seaweed is ~~fresh or~~ frozen.
13. (currently amended): [A] The method as claimed in claim 12, wherein in (i), the seaweed is treated with ethanol at a temperature of from about 40 to about 60°C.
14. (currently amended): [A] The method as claimed in claim 1, wherein in (iv) the first seaweed residue is extracted from hydrochloric acid at pH of about 0.5-3.0, ~~preferably 0.5-1.5~~.
15. (currently amended): [A] The method as claimed in claim ~~3~~ 1, wherein the second seaweed residue is extracted with water at pH of about 2.0-5.0, ~~preferably 3.5-4.0~~.

16. (currently amended): [A] The method as claimed in claim 15, ~~wherein one or more of the extracts are sequentially concentrated~~ including the further step of concentrating one or more of the extracts by ultrafiltration on hollow fiber with pore size of 6-100 kDa.

17. (currently amended): [A] The method as claimed in claim 6, wherein a salt of polymannuronic acid is formed by treating the precipitate of polymannuronic acid with a solution of a salt compound selected from the group consisting of sodium hydroxide, ammonium oxalate, calcium hydroxide and magnesium hydroxide.

18. (currently amended): The method as claimed in claim 9, wherein a salt of alginic acid is formed by treating the third seaweed residue with a salt compound selected from the group consisting of sodium hydroxide, sodium bicarbonate, ammonium oxalate, calcium hydroxide and magnesium hydroxide.

19. – 20. (canceled)

21. (canceled)

22. (currently amended): [A] The method as claimed in claim 1 wherein the alcohol is ethanol and the seaweed is *Fucus evanescens*.

23. (currently amended): [A] The method as claimed in claim 17 wherein the salt is sodium hydroxide.

24. (currently amended): [A] The method as claimed in claim 18 wherein the salt is sodium bicarbonate.